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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,776	07/21/2003	Hiroyuki Hagano	26D-010	4241

23400 7590 01/18/2006

POSZ LAW GROUP, PLC  
12040 SOUTH LAKES DRIVE  
SUITE 101  
RESTON, VA 20191

EXAMINER
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VJAYAKUMAR, KALLAMBELLA M

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/622,776

Applicant(s)

HAGANO ET AL.

Examiner

Kallambella Vijayakumar

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 10-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

Applicant's election with traverse of Group-I, Claims 1-9 in the reply filed on 10/31/2005 is acknowledged. Claims 10-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. The requirement is still deemed proper for the reasons set forth in office action mailed 01/07/2005, and is therefore made FINAL.

The information disclosure statement (IDS) submitted on 12/27/2005, 07/29/2004, 11/17/2003 are in compliance with the provisions of 37 CFR 1.97, and accordingly, the information disclosure statements have been considered by the examiner.

***Claim Rejections - 35 USC § 102***

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakai et al (US 5,373,039).

The use of phrase "for grounding" in the claim-1 has not been treated with patentability. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

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Sakai et al teach a molded pieces comprising: (a). thermoplastic polymer such as polyethylene terephthalate/PET, (b). rubber such as acrylonitrile-butadiene-styrene/ABS, (c). carbon black such as acetylene black, furnace black, Degussa #45 in the amount 0.01-3 parts by wt per 100 parts by wt of thermoplastic resin, and (d). carbon fibers in the amount 0-50 parts by wt per 100 parts by wt of thermoplastic resin and laser inscribing of the object by YAG laser (Col-5, Ln 35-39; Col-2, Ln 32-48; Col-4, Ln 3-11; Col-5, Ln 41-62). All the limitations of the instant claims are met.

The reference is anticipatory.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimotsuma et al (US 5,262,470).

Shimotsuma et al teach a molded article comprising: (a). a thermoplastic polyester such as polyethylene terephthalate/PET, (b). carbon black/graphite with a particle size of 0.1-150 microns in the amount 0.01-2% by wt, and (c). carbon/steel fibers in the amount 0-70% by wt and laser inscribing of the object by CO2 laser (Col-7, Ln 11-27; Col-2, Ln 21-32; Col-6, Ln 34-59; Fig-1). All the limitations of the instant claims are met.

The reference is anticipatory.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over either Sakai et al (US 5,373,039) or Shimotsuma et al (US 5,262,470) in view of Harada et al (US 5,409,775).

The disclosure on the composition and molded pieces by Sakai et al (US 5,373,039) as set forth in rejection-1 under 35 USC 102(b) is herein incorporated.

The disclosure on the composition and molded article by Shimotsuma et al (US 5,262,470) as set forth in rejection-2 under 35 USC 102(b) is herein incorporated.

Both the prior arts are silent about the particle diameter and size of the carbon fibers in their compositions.

In the analogous art, Harada et al teach the making of vapor-grown and graphitized carbon fibers having a mean diameter of 5 microns or smaller, a mean length of 90 microns or shorter, and a mean aspect ratio of 1-18 for molded composites/articles (Abstract).

It would be obvious to a person of ordinary skill in the art to combine the prior art teachings to substitute the carbon fibers of either Sakai et al or Shimotsuma et al with the VGCF of Harada et al as functional equivalent with reasonable expectation of success, because the prior art teachings are in the analogous art of molded objects/articles.

2. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over either Sakai et al (US 5,373,039) or Shimotsuma et al (US 5,262,470) in view of Springholtz et al (DE 10013000).

The disclosure on the composition and molded pieces by Sakai et al (US 5,373,039) as set forth in rejection-1 under 35 USC 102(b) is herein incorporated.

The disclosure on the composition and molded article by Shimotsuma et al (US 5,262,470) as set forth in rejection-2 under 35 USC 102(b) is herein incorporated.

Both the prior arts fail to teach forming a cap cover using their compositions.

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In the analogous art of molded objects, Springholtz et al teach forming automobile parts including tank caps from conductive compositions containing thermoplastic polymer filled with conductive carbon black/carbon fiber/metal-filaments (US Pub: 2003/0021926: Para-0001-0002, 0004, 0010, 0012).

It would be obvious to a person of ordinary skill in the art to form automobile parts including tank caps by combining the teachings of either Sakai et al or Shimotsuma et al with the teachings of Springholtz et al with reasonable expectation of success, because the combined prior art teaching is suggestive of claimed tank cap, and the teachings are in the analogous art of molded objects/articles.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on 8-5.30 Mon-Thu, 8-4.30 Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMV  
January, 06, 2005.

  
**Mark Kopec**  
**Primary Examiner**